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(12) United States Patent
Boffa et al.(10) Patent No.: US 6,235,691 B1
(45) Date of Patent: May 22, 2001(54) OIL COMPOSITIONS WITH SYNTHETIC
BASE OILS(75) Inventors: Alexander B. Boffa, Glen Gardner, NJ
(US); Thomas R. Bidwell, Delaware,
OH (US); Joe R. Noles, Jr., Belle
Mead, NJ (US)(73) Assignee: Exxon Chemical Patents Inc., Linden,
NJ (US)(*) Notice: Subject to any disclaimer, the term of this
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Related U.S. Application Data

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(58) Field of Search 508/482, 485

(56) References Cited

U.S. PATENT DOCUMENTS

3,271,315 9/1966 McCabe 508/485

3,974,081	8/1976	Rutkowski et al.	508/482
4,053,491	10/1977	Koch et al.	508/485
4,144,183	3/1979	Koch et al.	508/485
4,313,890	2/1982	Chu et al.	508/485
4,370,247	1/1983	Ostyn	508/482
4,464,277	8/1984	Cousineau et al.	508/484
4,790,957	12/1988	Mach et al.	508/482
4,826,614	5/1989	Watanabe	508/482
5,458,794	10/1995	Bardasz et al.	508/485
5,602,086	2/1997	Le et al.	508/485
5,665,686	9/1997	Schlosberg et al.	508/485

FOREIGN PATENT DOCUMENTS

0 496486	7/1992 (EP)	C10M/111/04
02554668	8/1996 (JP)	C10M/169/04
WO 96/28525	9/1996 (WO) .	

* cited by examiner

Primary Examiner—Jacqueline V. Howard

(57) ABSTRACT

A lubricating oil composition is disclosed comprising at least 10% by weight of the total oil composition of an ester of phthalic acid having a viscosity index less than 100. The lubricating oil composition has improved fuel economy and wear performance.

11 Claims, No Drawings

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